

CLAIMS

1. An arc lamp power supply including a first part including a converter adapted to convert a low voltage power supply to provide an arc running power supply suitable for running an arc lamp after an arc has been struck;
5 a second part adapted to receive an output of said arc running power supply and to apply said supply to an arc lamp, including means to effect a high voltage power supply suitable for starting an arc in an arc lamp; and a flexible electrical cable adapted to connect the first part to the second part, carrying the arc running power supply voltage.
- 10 2. The power supply of claim 1, wherein the converter is a DC-DC converter.
3. The power supply of claim 2 wherein the converter is a boost converter
4. The power supply of claim 1 wherein the converter is a DC-DC flyback converter, including a ballast and a switch, the duty cycle of the switch being controlled by an oscillator.
- 15 5. The power supply of claim 4 wherein the duty cycle of the switch is controlled by a an electronic controller.
6. The power supply of claim 1 wherein the first part is housed in a housing adapted to be mounted on a belt or harness to be worn by a user.
7. The power supply of claim 1 wherein the first part is housed in a housing
20 adapted to be mounted on the frame or body of a bicycle or a motor vehicle.
8. The power supply of claim 1 wherein the means to effect a high voltage power supply includes a means to accumulate a voltage from said arc running power supply, a coil and means to apply this accumulated voltage in a pulse to the coil.
- 25 9. The power supply of claim 8 wherein the means to apply voltage in a pulse is a gas discharge tube.

10. The power supply of claim 8 wherein the means to apply voltage in a pulse is a switch.
11. The power supply of claim 8 wherein the means to accumulate voltage is a capacitor.
- 5 12. A power supply as in claim 1 wherein the second part includes a capacitor, a gas discharge tube and a centre tapped transformer, wherein in use, the capacitor is charged by the arc running power supply until the breakdown voltage of the gas discharge tube is reached, whereupon the tube conducts, applying a voltage pulse to the centre tap on the transformer, thereby
- 10 applying an arc striking voltage to a connected arc lamp.
13. The power supply of any of the preceding claims wherein the cable has a rated breakdown voltage of 500V or less.
14. The power supply of any of the preceding claims wherein the cable has a rated breakdown voltage of 300V or less.
- 15 15. The power supply of any of the preceding claims wherein the low voltage power supply is a battery or batteries.
16. An arc lamp power supply substantially as described in the specification with reference to and as illustrated by any one or more of the accompanying drawings.